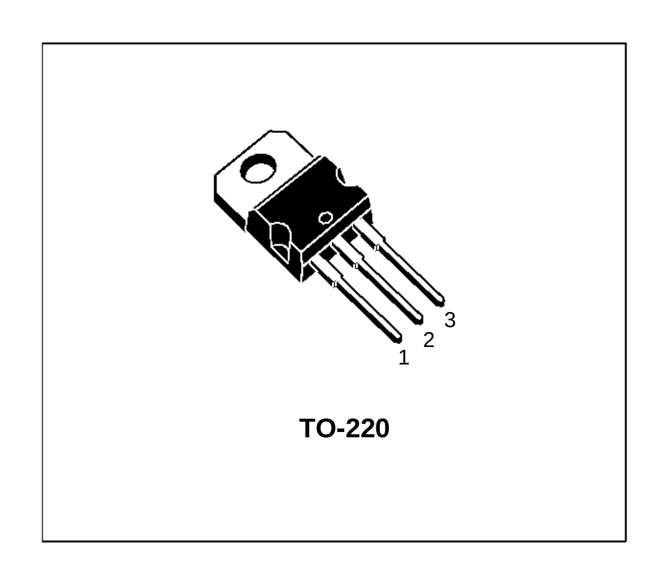


BUV26

SILICON NPN SWITCHING TRANSISTOR

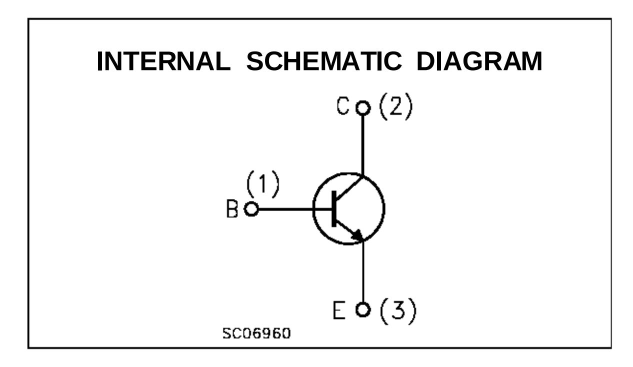
- LOW SATURATION VOLTAGE
- FAST TURN-ON AND TURN-OFF
- BASE DRIVE SPECIFIED FOR DIFFERENT VALUES OF I_C
- WIDE SURGE AREA

DESCRIPTION
High speed transistor suited for low voltage applications.
High frequency and efficiency converters switching regulators motor control.



TO-220

INTERNAL SCHEMATIC DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-base Voltage (I_E = 0)	180	V
V_{CEO}	Collector-Emitter Voltage (I_B = 0)	90	V
V_{EBO}	Emitter-Base Voltage (I_C = 0)	7	V
I_C	Emitter Current	14	A
I_{CM}	Collector Peak Current (t_p <10ms)	25	A
I_B	Base Current	4	A
I_{BM}	Base Peak Current (t_p <10ms)	6	A
P_{tot}	Total Dissipation at Tc < 25 ^oC	85	W
P_{tot}	Total Dissipation at T_c < 60 ^oC	65	W
T_{stg}	Storage Temperature	-65 to +175	^oC
T_j	Max. Operating Junction Temperature	175	^oC

THERMAL DATA

$R_{thj\text{-}case}$	Thermal Resistance Junction-case	Max	1.76	°C/W

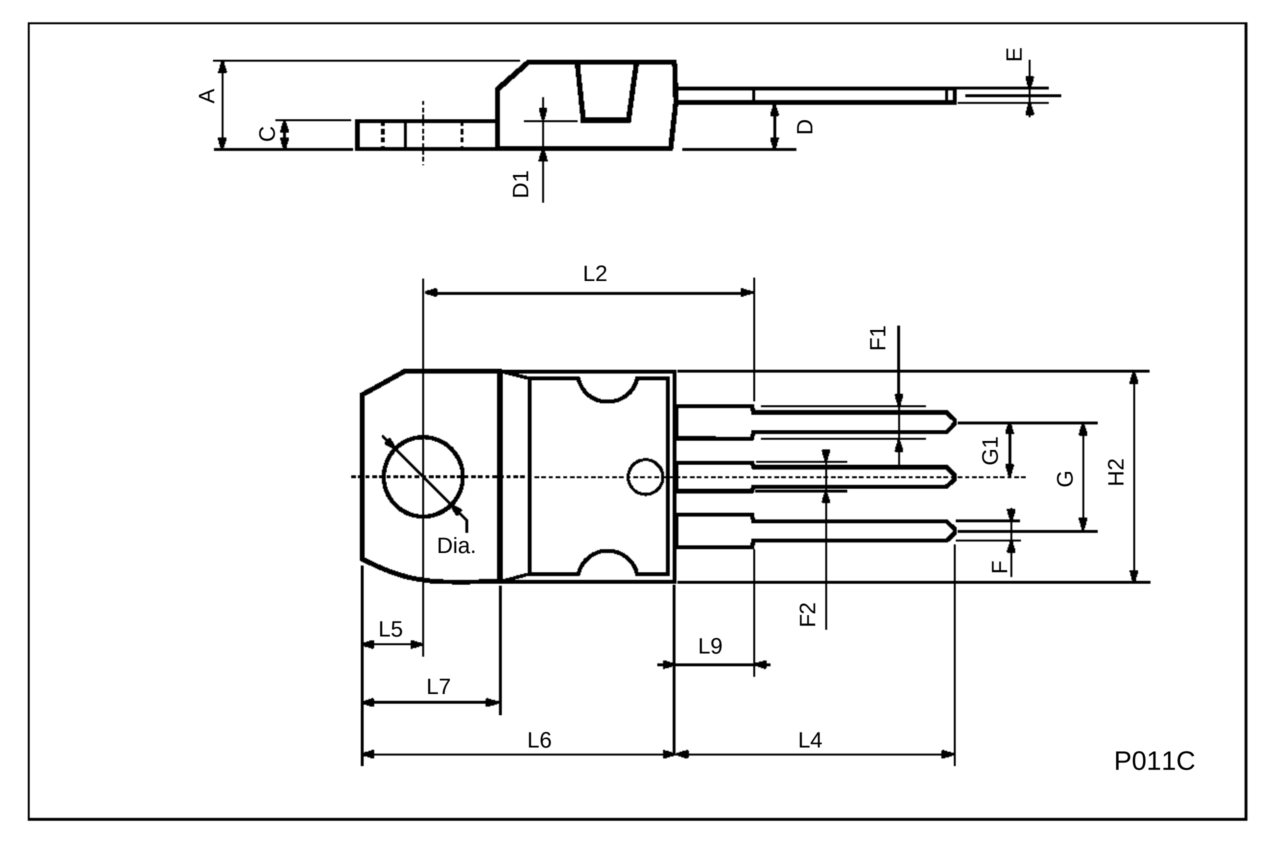
ELECTRICAL CHARACTERISTICS (T_{case} = 25 °C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CER}	Collector Cut-off Current (R_{BE} = 50Ω)	V_{CE} = 180V T_c = 125°C			3	mA
I_{CEX}	Collector Cut-off Current	V_{CE} = 180V V_{BE} = -1.5V T_c = 125°C			1	mA
I_{EBO}	Emitter Cut-off Current (I_C = 0)	V_{EB} = 5 V			1	mA
$V_{CEO(sus)}$*	Collector-Emitter Sustaining Voltage	I_C = 0.2mA L = 25mH	90			V
V_{EBO}	Emitter-Base Voltage (I_C = 0)	I_E = 50mA	7		30	V
$V_{CE(sat)}$*	Collector-Emitter Saturation Voltage	I_C = 6A I_B = 0.6A I_C = 12A I_B = 1.2A			0.6 1.5	V V
$V_{BE(sat)}$*	Base-Emitter Saturation Voltage	I_C =12A I_B = 1.2A			2	V
 t_{on} t_s t_f	**RESISTIVE LOAD** Turn-on Time Storage Time Fall Time	 V_{CC} = 50V I_C =12A V_{BE} = - 6V I_{B1} = 1.2A R_{BB} = 2.5Ω		 0.4 0.45 0.12	 0.6 1 0.25	 ms µs µs
 t_s t_f t_s t_f	**INDUCTIVE LOAD** Storage time Fall Time Storage Time Fall Time	 V_{CC} = 50V I_C = 12A V_{BE} = - 5V I_{B1} = 1.2A L_B = - 0.5µH V_{CC} = 50V I_C = 12 A V_{BE} = - 5V I_{B1} = 1.2A L_B = - 0.5µH T_j = 125°C		 0.5 0.04	 2 0.15	 µs µs µs µs

∗ Pulsed: Pulse duration = 300µs, duty cycle = 1.5 %

TO-220 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.40		4.60	0.173		0.181
C	1.23		1.32	0.048		0.051
D	2.40		2.72	0.094		0.107
D1		1.27			0.050	
E	0.49		0.70	0.019		0.027
F	0.61		0.88	0.024		0.034
F1	1.14		1.70	0.044		0.067
F2	1.14		1.70	0.044		0.067
G	4.95		5.15	0.194		0.203
G1	2.4		2.7	0.094		0.106
H2	10.0		10.40	0.393		0.409
L2		16.4			0.645	
L4	13.0		14.0	0.511		0.551
L5	2.65		2.95	0.104		0.116
L6	15.25		15.75	0.600		0.620
L7	6.2		6.6	0.244		0.260
L9	3.5		3.93	0.137		0.154
DIA.	3.75		3.85	0.147		0.151




SGS-THOMSON
MICROELECTRONICS